

**I. AMENDMENTS TO THE CLAIMS**

Claim 1. (Canceled)

Claim 2. (Currently Amended) A substantially purified nucleic acid molecule that encodes a maize or a soybean enzyme ~~or fragment of said enzyme~~, wherein said nucleic acid molecule comprises a nucleic acid sequence selected from the group consisting of SEQ ID NOs: 11, 446, 935, 1108, 2042, 2166, 2252, 2644, 2681, and 2753, wherein said enzyme encoded by said nucleic acid molecule is triose phosphate isomerase, vacuolar H<sup>+</sup> translocating-pyrophosphatase, sucrose synthase, hexokinase, fructose 1,6-bisphosphate aldolase, fructose 6-phosphate 2-kinase, invertase, fructokinase, NDP-kinase, and UDP-glucose pyrophosphorylase, respectively.

Claims 3 to 6. (Canceled)

Claim 7. (Previously Presented) A substantially purified nucleic acid molecule comprising a nucleic acid sequence selected from the group consisting of SEQ ID NOs: 11, 446, 935, 1108, 2042, 2166, 2252, 2644, 2681, and 2753.

Claim 8. (Previously Presented) The substantially purified nucleic acid molecule of claim 7, wherein said nucleic acid molecule comprises the nucleic acid sequence of SEQ ID NO: 11.

Claim 9. (Previously Presented) The substantially purified nucleic acid molecule of claim 7, wherein said nucleic acid molecule comprises the nucleic acid sequence of SEQ ID NO: 446.

Claim 10. (Previously Presented) The substantially purified nucleic acid molecule of claim 7, wherein said nucleic acid molecule comprises the nucleic acid sequence of SEQ ID NO: 935.

Claim 11. (Previously Presented) The substantially purified nucleic acid molecule of claim 7, wherein said nucleic acid molecule comprises the nucleic acid sequence of SEQ ID NO: 1108.

Claim 12. (Previously Presented) The substantially purified nucleic acid molecule of claim 7, wherein said nucleic acid molecule comprises the nucleic acid sequence of SEQ ID NO: 2042.

Claim 13. (Previously Presented) The substantially purified nucleic acid molecule of claim 7, wherein said nucleic acid molecule comprises the nucleic acid sequence of SEQ ID NO: 2166.

Claim 14. (Previously Presented) The substantially purified nucleic acid molecule of claim 7, wherein said nucleic acid molecule comprises the nucleic acid sequence of SEQ ID NO: 2252.

Claim 15. (Previously Presented) The substantially purified nucleic acid molecule of claim 7, wherein said nucleic acid molecule comprises the nucleic acid sequence of SEQ ID NO: 2644.

Claim 16. (Previously Presented) The substantially purified nucleic acid molecule of claim 7, wherein said nucleic acid molecule comprises the nucleic acid sequence of SEQ ID NO: 2681.

Claim 17. (Previously Presented) The substantially purified nucleic acid molecule of claim 7, wherein said nucleic acid molecule comprises the nucleic acid sequence of SEQ ID NO: 2753.

Claim 18. (Previously Presented) The substantially purified nucleic acid molecule of claim 2, wherein said enzyme is a maize triose phosphate isomerase, and wherein said nucleic acid sequence is SEQ ID NO: 11.

Claim 19. (Previously Presented) The substantially purified nucleic acid molecule of claim 2, wherein said enzyme is a maize vacuolar H<sup>+</sup> translocating-pyrophosphatase, and wherein said nucleic acid sequence is SEQ ID NO: 446.

Claim 20. (Previously Presented) The substantially purified nucleic acid molecule of claim 2, wherein said enzyme is a maize sucrose synthase, and wherein said nucleic acid sequence is SEQ ID NO: 935.

Claim 21. (Previously Presented) The substantially purified nucleic acid molecule of claim 2, wherein said enzyme is a maize hexokinase, and wherein said nucleic acid sequence is SEQ ID NO: 1108.

Claim 22. (Previously Presented) The substantially purified nucleic acid molecule of claim 2, wherein said enzyme is a soy fructose 1,6-bisphosphate aldolase, and wherein said nucleic acid sequence is SEQ ID NO: 2042.

Claim 23. (Previously Presented) The substantially purified nucleic acid molecule of claim 2, wherein said enzyme is a soy fructose 6-phosphate 2-kinase, and wherein said nucleic acid sequence is SEQ ID NO: 2166.

Claim 24. (Previously Presented) The substantially purified nucleic acid molecule of claim 2, wherein said enzyme is a soy invertase, and wherein said nucleic acid sequence is SEQ ID NO: 2252.

Claim 25. (Previously Presented) The substantially purified nucleic acid molecule of claim 2, wherein said enzyme is a soy fructokinase, and wherein said nucleic acid sequence is SEQ ID NO: 2644.

Claim 26. (Previously Presented) The substantially purified nucleic acid molecule of claim 2, wherein said enzyme is a soy NDP-kinase, and wherein said nucleic acid sequence is SEQ ID NO: 2681.

Claim 27. (Previously Presented) The substantially purified nucleic acid molecule of claim 2, wherein said enzyme is a soy UDP-glucose pyrophosphorylase, and wherein said nucleic acid sequence is SEQ ID NO: 2753.